



## INDEPENDENT MARITIME CONSULTING LLC

Tel: +1 203-256-1000 • Fax: +1 203-256-1020

Email: Head@IndependentMaritime.com • Web: www.IndependentMaritime.com

June 15, 2022

Our Reference: 19417.21.09

**Via Email**

Welder Leshin LLP

800 N. Shoreline Blvd, Suite 300 North

Corpus Christi, Texas 78401

Attn: Dabney Welsh Pettus

**RE: Expert Report Moda Ingleside Oil Terminal, LLC vs. RIVERSIDE, its engines, tackle, etc. in rem and Glory Riverside Navigation, Ltd., in personam, United States District Court for the Southern District of Texas, Corpus Christi Division, Case No. 2:21-cv-00039**

Dear Counsel:

I provide this expert report to summarize my analysis and opinions following a review of documents and information provided to me related to the above-referenced matter.

I reserve the right to modify or supplement the opinions stated in my report should further documents or information become available to me. I am available for deposition and trial attendance in this matter whereupon I may further elucidate such opinions.

Fees charged by IMC for my time are provided in the attached fee schedule.

Sincerely yours,

Patrick Darjon

BSc (Hons) Civil Engineering, IEng, MICE 62374783, MBA

**Enclosures:**

*Resume and Rule 26 Disclosures*

### Independent Maritime Consulting Offices

**Head Office**

**Southeast/Caribbean**

Miami, Florida

Office: +1 (203) 256 1000

Mobile: +1 (954) 425 2380

**Northeast/New England**

Boston, Massachusetts

Office: +1 (203) 256 1000

Mobile: +1 (978) 968 8459

**Regional Office**

Southport, Connecticut

Office: +1 (203) 256 1000

Mobile: +1 (203) 767 2240

**Mid Atlantic**

Philadelphia, Pennsylvania

Office: +1 (203) 256 1000

Mobile: +1 (267) 575 6041

**Gulf of Mexico**

Houston, Texas

Office: +1 (203) 256 1000

Mobile: +1 (281) 908 4992

**Regional Office**

New Orleans, Louisiana

Office: +1 (203) 256 1000

Mobile: +1 (504) 828 6933

**Pacific (USA and Canada)**

Vancouver, Canada

Office: +1 (778) 285 0053

Mobile: +1 (778) 989 0153

**Regional Office**

Los Angeles, California

Office: +1 (203) 256 1000

Mobile: +1 (661) 388 3364

**Southern Caribbean**

Willemstad, Curacao

Office: +1 (203) 256 1000

Mobile: +5999 516 5090

**Brazil**

Sao Paulo, Brazil

Office: +55 11 994680133

Mobile: +55 11 40298333

**Argentina**

Buenos Aires, Argentina

Office: +1 (203) 256 1000



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"		
Case No. 2:21-cv-00039	IMC Ref. 19417.21.09	Report: 001

## 1. INTRODUCTION

- 1.1. Instructions were received from Welder Leshin Lorenz Buchanan Hawn, LLP., Corpus Christi, Texas (TX), on behalf of the M/T RIVERSIDE ("RIVERSIDE") and her Interests, to provide expert opinion on the damages and reasonable repair costs to the Moda Ingleside Dock (the "Dock") at Ingleside, Texas, as a result of an allision by the RIVERSIDE on March 15, 2021.
- 1.2. I have formed the opinions stated herein based on my professional experience in civil engineering and maritime infrastructure/dock design and construction, academic qualifications, knowledge, industry resources, in house references, and other information reviewed and listed in this report.
- 1.3. Per Rule 26(a)(2)(B) of the Federal Rules of Civil Procedure, attached is my full resume, fee schedule, list of cases testified as an expert (previous 4 years) and articles authored (previous 10 years).

## 2. DOCUMENTS AND MATERIALS REVIEWED

- 2.1. I have reviewed the following materials in preparation of this report:
  - 1) Plaintiff's Original Verified Complaint dated 3/15/2021;
  - 2) Plaintiff MODA's First Amended Complaint dated 4/28/2021;
  - 3) Nordic Aquarius Interests' Answer and Cross-Claim dated 7/6/2021;
  - 4) (Glory Riverside) First Amended Verified Statement of Right or Interest dated 7/9/2021;
  - 5) Defendant Thome Ship Management PTE LTD's Original Answer to Plaintiff's First Amended Complaint dated 7/6/2021;
  - 6) Defendant Active Denizcilik Ve Gemi's Original Answer to Plaintiff's First Amended Complaint dated 7/6/2021;
  - 7) Defendant Glory Riverside Navigation, Ltd.'s Original Answer to Plaintiff's First Amended Complaint dated 7/6/2021;
  - 8) Scheduling Order dated 7/20/2021;
  - 9) M/T RIVERSIDE'S Interests' Original Answer to Cross-Plaintiffs' Cross-Claim dated 7/27/2021;
  - 10) M/T RIVERSIDE'S Interests' Original Cross-Claim Against M/V NORDIC AQUARIUS INTERESTS dated 7/27/2021;
  - 11) Plaintiff MODA'S Second Amended Complaint dated 7/30/2021;
  - 12) Nordic Aquarius Interests' Answer to Plaintiff's Second Amended Complaint dated 8/11/2021;
  - 13) Nordic Aquarius Interests' Answer to Riverside Interests' Cross-Claim dated 8/17/2021;
  - 14) Defendant Active Denizcilik Ve Gemi's Original Answer to Plaintiff's Second Amended Complaint dated 8/20/2021;



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039	IMC Ref. 19417.21.09	Report: 001	

- 15) Defendant Glory Riverside Navigation, Ltd.'s Original Answer to Plaintiff's Second Amended Complaint dated 8/20/2021;
- 16) Riverside Defendants' Rule 26 Initial Disclosures dated 8/25/2021;
- 17) Plaintiff MODA Ingleside Oil Terminal, LLC's Rule 26 Initial Disclosures dated 8/25/2021;
- 18) Nordic Aquarius Interests' Initial Disclosures dated 8/30/2021;
- 19) Plaintiff Moda Ingleside Oil Terminal, LLC's Objections and Responses to Riverside Defendants' First Set of Requests for Production dated 9/14/2021;
- 20) Plaintiff Moda Ingleside Oil Terminal, LLC's Objections and Responses to Riverside Defendants' First Set of Interrogatories dated 9/14/2021;
- 21) Plaintiff Moda Ingleside Oil Terminal, LLC's Objections and Responses to OCY Aquarius Ltd's Requests for Production dated 9/15/2021;
- 22) Plaintiff Moda Ingleside Oil Terminal, LLC's Objections and Responses to OCY Aquarius Ltd's First Set of Interrogatories dated 9/15/2021;
- 23) Nordic Aquarius Interests' Objections and Answer to Riverside Interests' First Set of Interrogatories dated 9/17/2021;
- 24) Nordic Aquarius Interests' Objections and Answer to Riverside Interests' First Request for Production dated 9/17/2021;
- 25) Riverside Interests' Objections and Responses to OCY Aquarius Ltd's Request for Production dated 9/21/2021;
- 26) Riverside Interests' Answers and Objections to OCY Aquarius Ltd.'s First Set of Interrogatories dated 10/5/2021
- 27) Nordic Aquarius Interests' Objections and Responses to Moda Ingleside Terminal, LLC's Request for Production dated 10/08/2021;
- 28) NAT Chartering Ltd's Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/08/2021;
- 29) OCY Aquarius Ltd's Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/08/2021;
- 30) V. Ships Norway AS' Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/08/2021;
- 31) Plaintiff MODA Bates-numbers 00001-01095
- 32) Defendant RIVERSIDE Interests' Bates-numbers RIVERSIDE 00001-007719
- 33) Defendant Nordic Aquarius Interests' Bates-numbers NORDIC 0001-0669;
- 34) Captain Benjamin "Ben" Watson's Responses to Riverside Interest's Subpoena to Produce Documents, Information, or Objects;
- 35) Defendant Active Denizcilik Ve Gemi's Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/15/2021;




Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039		IMC Ref. 19417.21.09	Report: 001

- 36) Defendant Active Denizcilik Ve Gemi's Objections and Responses to MODA Ingleside Oil Terminal, LLC's First Requests for Production dated 10/15/2021;
  - 37) Defendant Glory Riverside Navigation Ltd.'s Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/15/2021;
  - 38) Defendant Glory Riverside Navigation Ltd.'s Objections and Responses to MODA Ingleside Oil Terminal, LLC's First Requests for Production dated 10/15/2021;
  - 39) Defendant M/T RIVERSIDE's Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/15/2021;
  - 40) Defendant M/T RIVERSIDE's Objections and Responses to MODA Ingleside Oil Terminal, LLC's First Requests for Production dated 10/15/2021;
  - 41) Defendant Thome Ship Management PTE Ltd.'s Objections and Answers to MODA Ingleside Oil Terminal, LLC's First Set of Interrogatories dated 10/15/2021;
  - 42) Defendant Thome Ship Management PTE Ltd.'s Objections and Responses to MODA Ingleside Oil Terminal, LLC's First Requests for Production dated 10/15/2021;
  - 43) Captain Cory Fontenot's Responses to Riverside Interests' Subpoena to Produce Documents, Information, or Objects in a Civil Action dated 11/01/2021;
  - 44) Captain Justin Anderson's Responses to Riverside Interests' Subpoena to Produce Documents, Information or Objects in a Civil Action dated 11/01/2021;
  - 45) Captain Trip Webb's Responses to Riverside Interests' Subpoena to Produce Documents, Information or Objects in a Civil Action dated 11/01/2021;
  - 46) NORDIC's response to correspondence, supplemental production dated 11/23/2021.
  - 47) Active's First Supplemental Objections and Responses to MODA's First RFP dated 12/29/2021.
  - 48) Glory's First Supplemental Objections and Responses to MODA's First RFP dated 12/29/2021.
  - 49) MT RIVERSIDE's First Supplemental Objections and Responses to MODA's First RFP dated 12/29/2021.
  - 50) Riverside Ds' First Supplemental Rule 26 Initial Disclosures dated 12/29/2021.
  - 51) Riverside Interests' First Supplemental Objections and Responses to OCY's RFP dated 12/29/2021.
  - 52) Thome's First Supplemental Objections and Responses to MODA's First RFP dated 12/29/2021.
  - 53) MODA demand letter dated May3, 2022.
- 2.2. On June 8, 2022, I was present at the offices of Royston Rayzor, Vickery & Williams, L.L.P, Houston, Texas, for the deposition of Jeremy Cannon, MODA Personnel. I expect to receive and review deposition transcript when it is available.



### 3. VESSEL PARTICULARS

3.1. The M/T RIVERSIDE is a 62,856-ton Oil Tanker with the following particulars:

VESSEL	M/T RIVERSIDE
Type	Oil Tanker
Owner:	Glory Riverside Navigation Limited, Turkey
Managers:	Thome Ship Management PTE LTD, Singapore
Commercial Managers:	Active Denizcilik Ve Gemi, Turkey
IMO / Call Sign:	9412464
Flag:	Malta/Valletta
Year Built:	2009 / STX-Jinhae, South Korea
Gross Tonnage:	62,856
Deadweight (Summer):	115,445
Class:	DNV-GL 1A1 Tanker for oil BIS Clean CSR E0 ESP SPM TMON VCS(2)
Length:	249.99m
Breadth:	44.03m
Photograph: <sup>1</sup>	

### 4. MODA INGLESIDE DOCK PARTICULARS

4.1. The MODA Terminal's berth 4/5 turning dolphin and concrete catwalks and concrete piles, Figure 1, is approximately 380 feet long with 12 pairs of concrete piles supporting a concrete walkway (separated into a 72-foot long section and 285-foot long section intersected by a transverse 55-foot long section).

<sup>1</sup> Image available on [www.marinetraffic.com](http://www.marinetraffic.com).

- 4.2. At the end of the catwalk is a six (6) tubular steel pile and steel framed mooring and turning dolphin with 3 fender units and four (4) 150 metric tonne single bitt bollards.

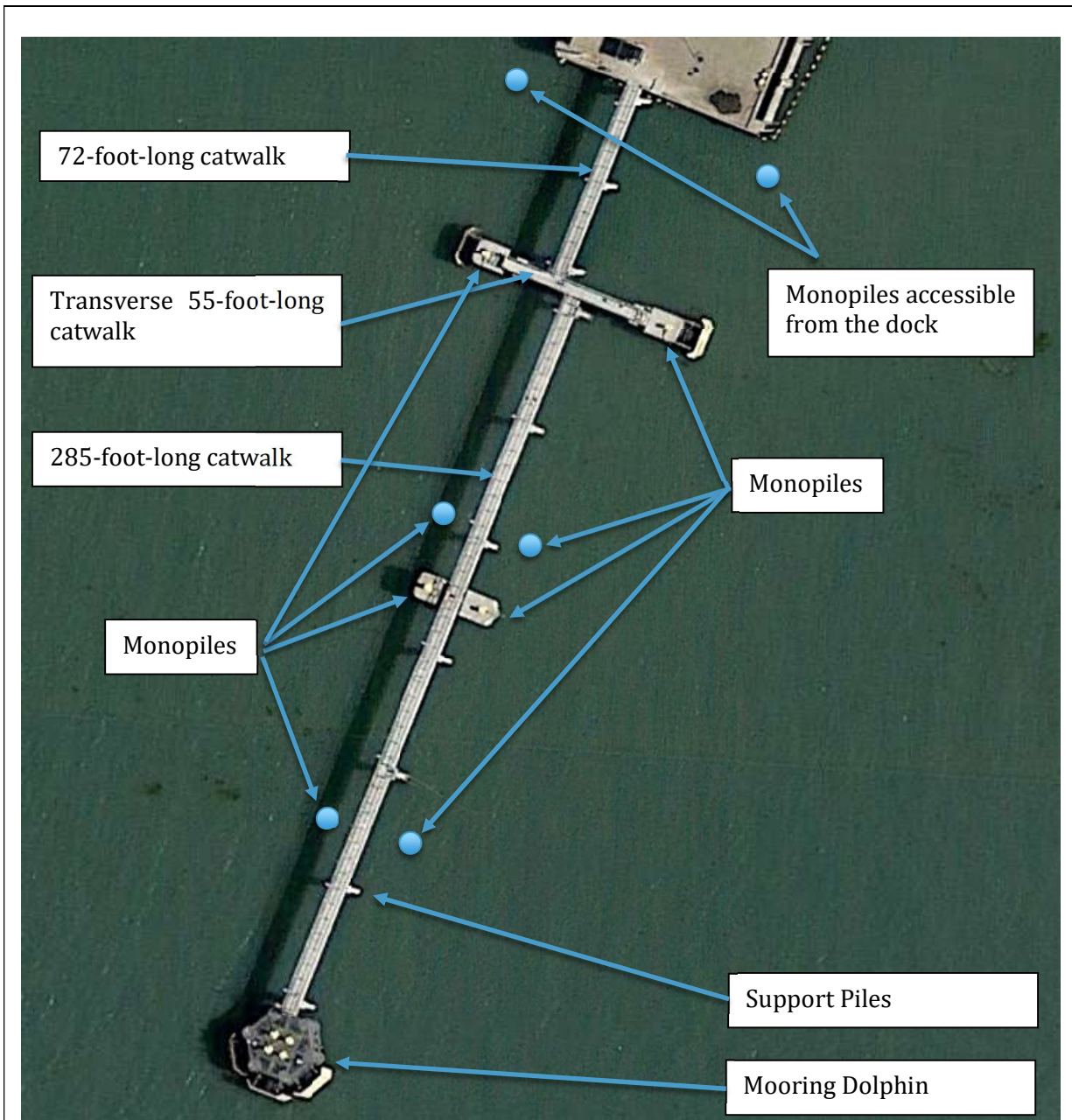


Figure 1: Satellite image of the MODA Terminal's berth 4/5 catwalk and mooring dolphin with monopiles added (Source: Google Earth).

- 4.3. From review of original construction drawings, it appears the turning dolphin, and concrete catwalks and concrete piles, were designed and installed circa 2016, making them some five (5) years old at the time of the incident.
- 4.4. The original construction drawings, and seen in satellite imagery in Figure 1, show four (4)





Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039		IMC Ref. 19417.21.09	Report: 001

monopiles with mooring bollards. Photographs taken on March 17, 2021, show these four monopiles had two (2) wire pendants each.

- 4.5. Not shown on the original construction drawings and not shown on satellite imagery, but observed on site, are six (6) additional monopiles with quick release mooring hooks (in addition to the four (4) monopiles and mooring bitts shown in satellite imagery). Two of these monopiles are accessible from the dock. The additional monopiles appear to have been added later.

## 5. SUMMARY BACKGROUND OF THE CASE

- 5.1. The comments and remarks in this section are based on our review of the provided documentation, data, and records. This section is not intended to be all-inclusive, nor does it purport to be a complete chronological record.
- 5.2. It is reported in the Verified Complaint and can be observed on a CCTV video provided by the terminal that on or about March 15, 2021, the M/T RIVERSIDE transiting outbound the Corpus Christi ship channel allided with the Moda Ingleside Energy Center (MIEC) berth 4 / 5 turning dolphin, resulting in damages to the MIEC turning dolphin.
- 5.3. A preliminary damage survey report (Bates 00870 – 00871) produced by Lanier and Associates (MODA's consulting engineers') on March 24, 2021, indicated the following damages, and a diagram of the same is shown in Figure 2:
  - Turning Dolphin - Severe damage. Inspection can be performed after salvage effort. No dive inspection performed.
  - CWB-10: Severe damage expected. Laying on bottom/not inspected.
  - WW 9: Laying on bottom/not inspected.
  - CWB-9: Severe damage. Broken concrete at pile top. Broken pile cap/walkway support cap.
  - WW 8: South end damaged, broken concrete with exposed rebar. Resting on MD7. Visual inspection from boat only due to hazardous conditions.
  - CWB-8: Concrete support cap damage. Pile/cap spalling. Exposed WW pin. No pile damage noted below water.
  - WW 7: Concrete damage on south end.
  - WW 4: North end damaged, exposed rebar
  - CWB-12: Laying on bottom/not inspected.
  - WW 3: Laying on bottom/not inspected.
  - CWB-11: Cap major damage. Cracking on sides and bottom face.
  - CWB-3: Minor concrete damage to pile cap
  - WW 2: South end damaged. Broken concrete

5.4. The remaining elements are noted as having no apparent damage.

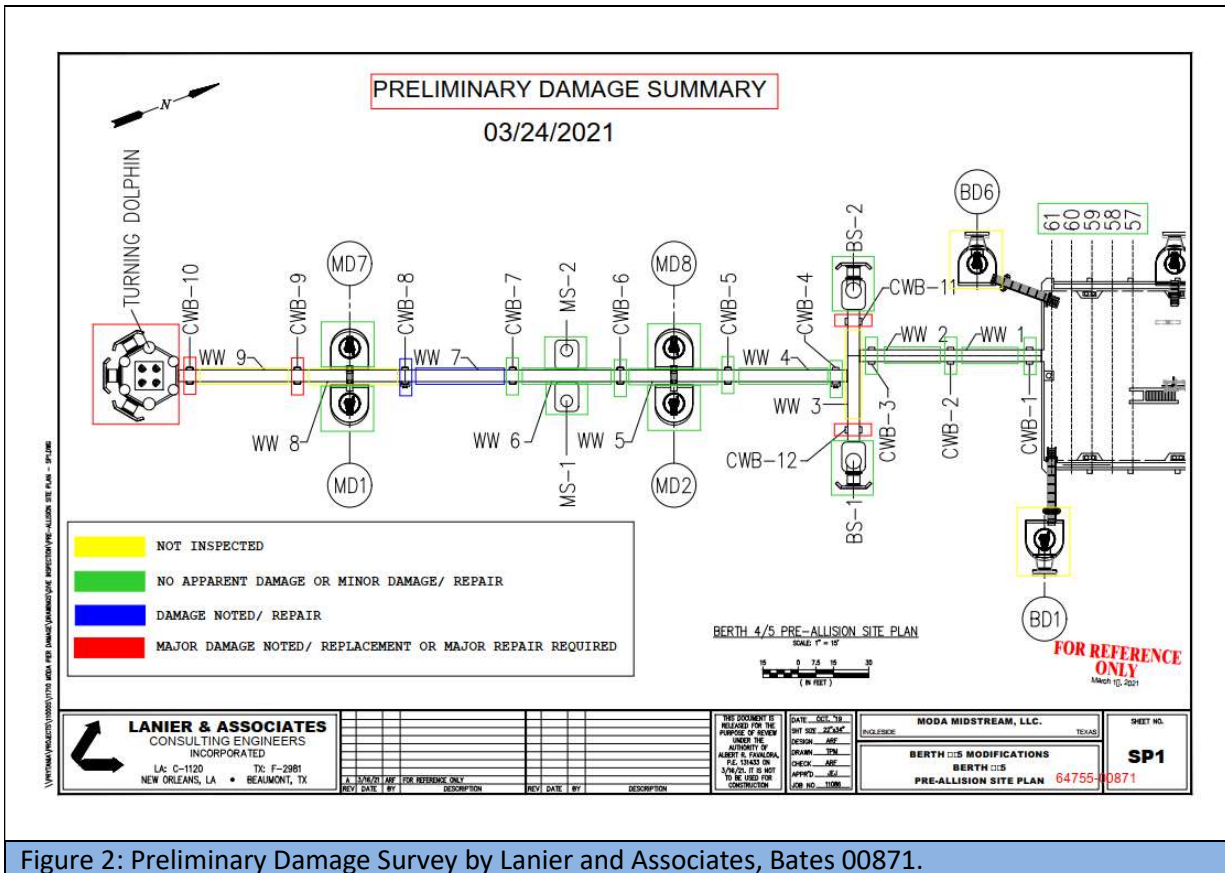


Figure 2: Preliminary Damage Survey by Lanier and Associates, Bates 00871.

5.5. Survey performed by the undersigned on March 17, 2021, April 26, 2021, at the MIEC berth 4 / 5, and on April 26, 2021, in the terminal lay down yard (where recovered material was located) confirmed the damages recorded above, noting the following:

- Monopiles BD6 and BD1 which were not inspected by Lanier and Associates do not show any signs of damage.
- One of the three rubber fender units was torn, and one fender shield had missing abrasion pads and significant deformation to the steel panel.

5.6. MODA subsequently engaged Lanier and Associates to perform mooring studies to identify measures required to safely berth vessels calling at berths 4 and 5 with input from Riben Marine who appear to have liaised with vessels and pilots on the temporary mooring arrangements, engaged Lanier and Associates to perform engineering for repairs, engaged contractors (Russel Marine) to perform debris recovery and demolition, and Boh Brothers to perform fabrication, delivery, and installation of the turning dolphin and elements of the concrete walkway and support piles (fabrication, delivery and installation), and Rabalais I&E to perform electrical works.

5.7. In the deposition of Jeremy Cannon on June 8, 2022, it was indicated that Boh Brothers did not perform walkway installation which were performed by Russel Marine, that the works had been completed and the electrical works were due to be inspected for marking as completed on June 8, 2022.





## 6. BASIS OF OPINION AND OTHER FACTS CONSIDERED

### DAMAGES AND REPAIRS

- 6.1. The damages are extensive as evident in the Lanier and Associates survey, and as confirmed by the undersigned during on site attendances.
- 6.2. A preliminary scope of repair works is provided in the Lanier and Associates preliminary survey report and outlined in the proposals and other invoices provided, these include:
- Debris recovery and demolition of mooring dolphin steel piles.
  - Purchase and drive six (6) tubular steel piles, fabricate mooring dolphin jacket, and install.
  - No information on the fender unit and fender shield is provided however, in deposition of Jeremy Cannon on June 8, 2022, it was indicated that fender elements and rubber units were reused from spares located at dock number 2. No invoice is provided for replacement of these items, with MODA indicating that a notional value of \$75,000 will be claimed for these fenders.
  - Fabricate and install eight (8) walkway piles and two (2) walkways.
  - Repair electrical and lighting equipment, and install load cells, controls, and electrical components for quick release hooks.
  - Purchase and install four (4) quick release hooks, load cells, monitoring equipment, and associated controls.
  - Perform repairs to concrete spalls at caps and walkways, handrails, electrical and lighting repairs.
- 6.3. The replacement turning dolphin is of a similar construction to the original with minor variations in the steel configuration to facilitate easier fabrication and installation, and to allow for offsetting the piles to avoid clashes with the below mudline elements of the existing dolphin structure.
- 6.4. The repairs performed do not appear unreasonable given the nature and extent of damage identified to the turning dolphin and walkway sections, except for the following:
- The original turning dolphin had four (4) mooring bitts, and replacement with two quick release hooks is a significant upgrade.
  - Two (2) fender rubber units and steel panels were replaced. Inspection showed only one (1) fender rubber unit and fender shield required replacement.
  - Electrical works appear to have included the upgrade of the monitoring system and introduction of load cells which are an improvement.
- 6.5. It is noted that in the expert report of Mr. Malcolm McLaren (bates 1069 – 1095) the purchase and installation of quick release hooks is determined to be a betterment and should be excluded from the costs of repairs.
- 6.6. MODA solicited bids from two contractors for the turning dolphin works, Russel Marine and Boh Brothers, both provided schedules for the work of around 6 months, and 5 months respectively. Boh Brothers were awarded the works, they had a lower price and shorter schedule, \$1,871,000



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039		IMC Ref. 19417.21.09	Report: 001

vs. \$2,995,000 and 5 months vs. 6 months.

- 6.7. The Boh Brothers works were impacted by delays due to shipping traffic, weather delays, and fabrication delays (as advised by Mr. Cannon in his June 8, 2022, deposition), with a variation order of some \$204,518.93 (Bates 0914 – 0915) included in invoices submitted by Boh Brothers.
- 6.8. The walkway works proposed by Boh Brothers (Bates 0103) were for \$798,850, with the Boh Brothers proposal separating the work into Fabrication for \$404,350.00 and Installation for \$394,500.00. These works were delayed starting and it was advised in the deposition of Mr. Cannon that Boh Brothers performed the fabrication and delivery of the walkways but not the installation works, which were performed by Russel Marine for \$419,739.38.
- 6.9. Although there are some alterations to the original design of the mooring dolphin (change in steel arrangement), they are relatively minor and do not materially change the structure or the overall cost range anticipated.

## COSTS

- 6.10. It is our assessment that most costs are reasonable and associated with the works with a few exceptions which are discussed below. For ease of reference, below is a tabulation summary of invoices we have been provided for review and a comparison against the McLaren Expert Report:

		Information provided for our review - Totals	McLaren Expert Report - Totals
Kennedy Wire Ropes	Invoices	\$60,836.07	\$60,836.07
Kennedy Wire Ropes	Quotes	\$25,283.04	
Signet	Invoices	\$65,412.00	\$66,833.17
Riben Marine	Invoices	\$88,000.00	\$73,200.00
Rabalais I&E Constructors	Invoices	\$21,394.18	\$190,266.69
Rabalais I&E Constructors	Proposal	\$168,872.51	
T Baker Smith	PO + Proposal	\$5,750.00	\$5,750.00
Trelleborg	Proposal	\$272,940.00	\$136,470.00
Trelleborg	Invoice	\$136,470.00	
Lanier	Invoices	\$182,920.35	\$181,705.35
Russel marine	Invoices	\$1,339,737.11	\$1,339,737.11
Boh Brothers	Invoices	\$2,637,668.93	\$2,637,668.93
Boh Brothers	Proposals	\$2,669,850.00	



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"		
Case No. 2:21-cv-00039	IMC Ref. 19417.21.09	Report: 001

- 6.11. A demand letter from MODA's counsel dated May3, 2022, is for the sum of \$6,000,000. No breakdown is provided for this cost. It is unclear if this number includes for other costs as MODA's experts indicate a reasonable cost of \$4,585,997.32.
- 6.12. The following comments are noted with reference to the McLaren Expert Report consideration of costs:
- The McLaren Expert Report total cost as tabulated above is \$4,692,467.32. Not reproduced above but stated in the report is a reduction for betterment of \$242,940.00 (for the Trelleborg proposal for quick release hooks less \$30,000 for standard mooring bitts), and an increase in the value by \$136,470.00 for 50% of the Trelleborg proposal as a missing invoice.
    - We understand from the deposition of Mr. Cannon that the Trelleborg invoice was for four (4) quick release hooks and associated equipment, and that the missing 50% invoice for the total value of the proposal will not be demanded from the vessel.
    - This should therefore reduce the McLaren totaled reasonable costs by \$136,470.00.
  - The McLaren Expert Report appears to combine the limited available Rabalais invoices with the proposal provided by Rabalais, with a total of \$190,266.69.
    - We note the Rabalais invoices only total \$21,394.18 and were advised all invoices are yet to be received.
- 6.13. The following comments are based on our invoice review and understanding of the extent of damage and scope of repairs:
- We understand that as access to the mooring points was not possible wire pendants were required to utilize the mooring points at MD1 and MD7, as well as MS1 and MS2. Drawings are provided (Bates 527 - 529) for temporary mooring arrangements for a Suezmax vessel at Berth 4s, Aframax at Berth 4s, and Aframax at Berth 5. Mooring analysis screen shots (Bates 0447 – 0448) are also provided for an Suezmax vessel at Berth 4s. These drawings show Suezmax and Aframax vessels require four (4) mooring points on MD1 or MD7 each, and two (2) mooring points on MS1 and MS2 each. This totals 12 wire pendants required to moor vessels. We further note that in photographs taken on March 17, 2021, that wire pendants existed at MS1 and MS2. Therefore, only eight (8) additional wire pendants are required.
    - The Kennedy invoices appear to total 30 wire ropes for a total of \$60,836.07 when only eight (8) additional and four (4) original (at the turning dolphin) are required, and the cost of the wire ropes should be prorated to 12 wire rope (40%), for a total of \$24,334.43.
  - It is unclear why there are Riben Marine costs of \$88,000. Particularly when it is understood from the deposition of Mr. Cannon that Lanier and Associates performed mooring analysis and Riben Marine liaised with Pilots, Vessels, and Lanier on the temporary mooring arrangement. The Riben Marine invoices show 'preparation of mooring configurations' for over 100 different vessels and it is unclear why any further mooring study was required when a temporary mooring arrangement had been established by Lanier and Associates, and why exhaustive consultation on over 100 vessels was required at all when establishing a mooring arrangement for a particular type of vessel is adequate. Riben Marine invoices show a rate of \$400 per hour for this consultation.
    - Some assessment and consultation are required however not to the apparent extent



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039		IMC Ref. 19417.21.09	Report: 001

observed. It might be appropriate that Suezmax and Aframax vessels are assessed at Berth 4 and Berth 5 portside alongside and starboard side alongside, totaling eight (8) mooring assessments or consultations, and that other general consultation is needed.

- A typical consulting rate can range anywhere between \$150 per hour to \$250 per hour, as can be observed in the engineering invoices provided by Lanier and Associates (with their costs falling within this range), and a \$400 per hour rate appears excessive for this type of consultation work.
    - We would expect based on the above that general consulting of this nature might be in the order of \$40,000.
  - We agree with the conclusion of Mr. McLaren that the quick release hook system is a betterment and should not be included. It is also noted that the Rabalais proposal includes for installation of the electrical systems for the new quick release hooks, upgraded monitoring system, and load cells. These should not be included.
    - The existing mooring arrangement contained four (4) quick release hooks and the electrical cabling to these was damaged in the incident and required replacement. However, the wiring and controls systems for the additional two (2) quick release hooks that were installed at the turning dolphin are not reasonable. A reduction of some 33% (two out of six quick release hooks) in addition to a notional 10% for upgrades and load cell additions to the existing quick release hooks might be an appropriate reduction. A 43% reduction of the proposed Rabalais work results in a reasonable cost of \$96,000.
  - In the deposition of Mr. Cannon we understood that Boh Brothers did not perform the installation of the catwalk piles and catwalks as defined in their proposal. The Boh Brothers invoices (Bates 916 – 0918) show a change in the two line items from the proposal from '8ea Walkway Pile & 2ea Walkway Fabrication' for \$404,350.00 and '8ea Walkway Pile & 2ea Walkway Installation' for \$394,500.00 to 'Fabrication for MODA Walkways' which has a charge of \$404,350.00 and 'Fab & Install Moda Walkways' which has a charge of \$157,800.00. Installation was performed by Russel Marine for \$419,739.38.
  - The invoice shows the fabrication costs are fully charged in line with the proposal, and it is not clear why Boh Brothers invoiced \$157,800.00 for this second line item 'Fab and Install Walkways' when Fabrication is completed in line with the proposal and no installation is performed.
    - This appears to be a charge in line with the installation costs and should be removed.
- 6.14. Overall, the total cost, as tabulated by McLaren of \$4,692,467.32, with \$106,470.00 deducted for betterment is mostly in line with what we consider reasonable for the scope of repairs required due to the extent of damage observed. We have the following exceptions:
- **\$136,470.00** should not be added back on to the McLaren total reasonable cost as this missing Trelleborg invoice was reported as not to be included. The Trelleborg invoices overall are considered as betterment.
  - **\$21,394.18** of Rabalais invoices should not be added to their proposal value. Additionally, we consider the proposal value should be reduced by some 43% to account for works unrelated to the incident, a further reduction of **\$94,266.69**.



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"			
Case No. 2:21-cv-00039		IMC Ref. 19417.21.09	Report: 001

- **\$36,501.64** should be deducted for wire ropes not required for the temporary mooring arrangement.
  - **\$48,000** should be removed from the Riben Marine consulting costs as they appear unreasonable.
  - **\$157,800** should be removed from the Boh Brothers invoice for the 'Fab and Install' line item of the walkways when Fabrication is already invoiced in line with their proposal and no installation was performed by Boh Brothers and is performed and invoiced by Russel Marine.
- 6.15. These reductions total **\$400,166**, which when deducted from the costs MODA's expert, McLaren, considered reasonable (\$4,585,997.32) gives a cost we consider reasonable for the works of **\$4,185,831**.

#### STRUCTURE AGE AND REMAINING SERVICE LIFE

- 6.16. The above remarks on costs do not consider the service life of the structure and its age.
- 6.17. The dolphin and catwalks were installed circa 2016 making them some 5 years old at the time of the incident. With a useful life of some 45 to 50 years the turning dolphin may have an increased useful life by around 10%.

## 7. CONCLUSIONS AND OPINIONS

- 7.1. Based upon the facts considered and the analysis presented in this report, I have formed the following opinions.
- 7.2. The damages recorded and reported are expected because of the allision as it occurred and require the turning dolphin demolition and debris recovery, and its replacement. It also required the repair works to the catwalks and support piles to the catwalks. Appropriate repairs are for a like-kind replacement.
- 7.3. As discussed in this report we consider the following items as not reasonable:
- The installation of quick release hooks in place of mooring bollards, the upgrade of the monitoring system, and electrical work associated with the upgrade and quick release hook installation.
  - The purchase of 30 wire ropes is more than required because of the incident, with approximately 12 being required for the end mooring dolphin and temporary mooring arrangement.
  - Consulting work by Riben Marine appears to be excessive with the extent of consultation performed over what is required, and at a rate that is higher than the typical rate of general consulting work such as this.
  - The invoice by Boh Brothers for installation works of the walkway piles and walkways when fabrication is complete and in line with their proposal, and when Russel Marine completed installation not Boh Brothers.
- 7.4. **The total costs as tabulated and reported as reasonable by MODA's expert were \$4,585,997.32 of these we consider reductions in the amount of \$400,166 should apply with a total reasonable cost of the works of \$4,185,831.**



Moda Ingleside Oil Terminal, LLC., vs. M/T "RIVERSIDE"		
Case No. 2:21-cv-00039	IMC Ref. 19417.21.09	Report: 001

## 8. DECLARATIONS

- 8.1. This report is based on the undersigned's review of the materials provided and information available to date. It is prepared in good faith and without prejudice to any or all parties concerned. The content of this report is true to the best of my knowledge and belief.
- 8.2. The opinions stated herein are based on my experience, education and knowledge of the matters in question, and I express them to a reasonable degree of professional certainty. Opinions are based on the case's specific circumstances and cannot be applied to any other situation, no matter how similar.
- 8.3. I reserve the right to modify or supplement my opinions should further information become available to me.

Respectfully submitted,

INDEPENDENT MARITIME CONSULTING, LLC

Patrick Darjon  
BSc (Hons) Civil Engineering, IEng, MICE 62374783, MBA

June 15, 2022





## **INDEPENDENT MARITIME CONSULTING LLC.**

Tel: +1 203-256-1000 • Fax: +1 203-256-1020

Email: [Head@IndependentMaritime.com](mailto:Head@IndependentMaritime.com) • Web: [www.IndependentMaritime.com](http://www.IndependentMaritime.com)

### **Patrick Darjon, BSc, IEng MICE, MBA Civil Engineer**

Bank of America Center  
700 Louisiana Street, Suite 3950  
Houston, Texas 77002  
Cell Phone: + 1 281-678-7642

E-mail: [pdarjon@independentmaritime.com](mailto:pdarjon@independentmaritime.com)

### **Professional Résumé**

#### **Principal Civil Engineer - Independent Maritime Consulting LLC (IMC)**

IMC acts as Commercial Correspondents for several major Hull and Machinery (H&M) and Protection & Indemnity (P&I) underwriters, which includes providing claims handling assistance to their assured, performing surveys and investigating casualties of all kinds, mitigating and evaluating damages, assisting in coordinating repairs and providing technical advice. In addition, IMC provides surveys, technical consulting and expert witness services to maritime law firms, vessel Owners, Charterers and their liability underwriters in connection with major casualties, personal injury and cargo claims.

Patrick is an Incorporated Civil Engineer and specializes in maritime infrastructure claims advice. His experience is founded on nearly a decade of Civil Engineering Design Construction / Consultancy in maritime infrastructure works (feasibility, detailed design, project management, construction and site supervision, technical analysis and report writing, inspection and condition assessment and repairs), and since 2015 providing maritime infrastructure claims advice to the maritime community with cases in North America, South America, Europe, and the Caribbean. Patrick has written U.S. Federal Court Expert Reports and provided testimony in deposition.

#### **Qualifications and Associations**

Master of Business Administration  
BSc (HONS) Civil Engineering  
Incorporated Civil Engineer (IEng)  
Member, Institution of Civil Engineers (MICE)  
British Citizen / U.S. Permanent Resident

#### **Areas of Expertise**

Marine Consultancy and Surveying  
Claims, Disputes & Litigation Support  
Civil Engineering Management, Condition Assessment, Analysis  
Protection and Indemnity  
Expert Witness  
Ports and Terminals Studies  
Mooring Analysis  
Maritime Infrastructure Assessment  
Diving Inspection and Repair Supervision



## INDEPENDENT MARITIME CONSULTING LLC.

Tel: +1 203-256-1000 • Fax: +1 203-256-1020

Email: Head@IndependentMaritime.com • Web: www.IndependentMaritime.com

### Recent Experience and Work History

Patrick has built up extensive knowledge of the maritime civil engineering industry over years working in international design consultancy performing all works associated with the analysis, assessment, construction, monitoring and repair of maritime infrastructure. Using this expertise Patrick since 2015 has provided advice to protection and Indemnity Clubs, insurance companies, underwriters, and lawyers for the assessment of maritime infrastructure and mechanical handling equipment through inspections, engineering cost estimating, mooring analysis, technical reporting, repair and construction methodologies review and advice, and provides supervision of claims matters.

Regularly appointed by P&I clubs, brokers, underwriters, owners/operators, and maritime law firms to undertake a variety of assignments ranging from vessel contact to natural disaster events, recent examples of typical areas covered are listed below:

- Maritime Infrastructure damage investigation (quaysides / jetty's / mooring dolphins / monopiles / bulkhead retaining walls) to concrete, steel, and timber structures, providing assessment of
- Assessment and investigation of damages to quayside areas such as asphalt paving, concrete paving.
- Damage assessment of mechanical handling equipment including Ship to Shore Gantry cranes (Post / Super Post Panamax), conveyor loading systems, small crane lifting equipment, roll-on roll-off landing areas and systems, passenger walkways and ship to shore gangways (stationary and hydraulic / articulated), marine loading arms for various products.
- Offshore platform damage, pipeline damage, offshore mooring and anchor chain systems, flexible hoses, and marine breakaway couplings.
- Marina pontoon and restraint system investigation for damages and deteriorations, marina bulkhead wall systems.
- Detailed mooring analysis for breakaway incidents, for mooring arrangement suitability, and for passing vessel forces assessment.
- Hurricane and earthquake related damage to civil engineering maritime infrastructure.
- Railway and roadway bridge damages.
- Management and supervision of diving inspections, and repair works.

These typical works are performed by Patrick to provide IMC's clients the best advice whether it is preliminary in nature, as a trusted support throughout a particular project, or acting as expert witness.

A full list of expert witness designations and live testimony experience is available upon request.

### Employment History

2022 to Present	Independent Maritime Consulting LLC Principal Civil Engineer
2015 to 2021	London Offshore Consultants Inc., (AqualisBraemar LOC Group) Houston,



## INDEPENDENT MARITIME CONSULTING LLC.

Tel: +1 203-256-1000 • Fax: +1 203-256-1020

Email: Head@IndependentMaritime.com • Web: www.IndependentMaritime.com

TX, USA  
Principal Civil Engineer

2014 to 2015  
Mouchel Ltd., UK  
Senior Engineer Maritime

2012 to 2014  
Atkins Ltd., UK  
Senior Engineer (Marine and Ports)

2010 to 2012  
Opus International Consultants, New Zealand  
Civil Engineer (Maritime and Ports)

2007 to 2010  
Opus International Consultants. UK  
Graduate Civil Engineer (Maritime and Ports)

2005 to 2006  
Carillion Building, UK  
Assistant Site Engineer

### Professional Development

Patrick has over the course of his career undertaken many training sessions including report writing techniques, anti-bribery and corruption training, cyber security training, workshops on management styles, strategy, behavior, negotiating, communications etc., as well as specific training on insurance matters such as the Texas All-Lines Adjuster course (Patrick is not an adjuster – training was for general and specific knowledge).

As well as this, Patrick as a Member of the Institution of Civil Engineers practices ongoing Continuing Professional Development (CPD), by attending a variety of exhibitions, seminars, and workshops on industry related topics for technical disciplines. Retaining a subscription to New Civil Engineer magazine to keep up to date with changes in industry.

Patrick regularly prepares and presents technical presentations direct to clients regarding structural damages because of marine casualty, as well as analysis and technical claims investigation, and attends similar events by others.

Patrick in currently has recently completed a master's in business administration.

### Publications

*Patrick has not authored any articles in the past 10 years.*



## INDEPENDENT MARITIME CONSULTING LLC.

Tel: +1 203-256-1000 • Fax: +1 203-256-1020

Email: Head@IndependentMaritime.com • Web: www.IndependentMaritime.com

### Patrick Darjon – 2022

### Schedule of Fees for Legal/Expert work

Consulting expert only (non-testifying):	\$230.00 / hour
-----	
Full Expert:	
Review of documents/report writing:	\$275.00 / hour
Site Attendance:	\$275.00 / hour or \$2,750 /day (half day increments max 10 hours)
Court/Deposition/Trial attendance:	\$375.00 hour (half day increments max 10 hours)
Expenses as incurred:	At cost
Retention Fee:	Assessed on a case-by-case basis
Admin fee:	2.5% of total invoice

### Independent Maritime Consulting Offices

#### Head Office

Southport, Connecticut  
Office: +1 (203) 256 1000  
Mobile: +1 (203) 767 2240

#### Northeast/New England

Boston, Massachusetts  
Office: +1 (203) 256 1000  
Mobile: +1(978) 968 8459

#### Mid Atlantic

Wilmington, Delaware  
Office: +1 (203) 256 1000  
Mobile: +1 (610) 212 7013

#### Southeast/Caribbean

Miami, Florida  
Office: +1 (203) 256 1000  
Mobile: +1(954) 425 2380

#### Eastern Gulf of Mexico

New Orleans, Louisiana  
Office: +1 (203) 256 1000  
Mobile: +1 (504) 858 6933

#### Western Gulf of Mexico

Houston, Texas  
Office: +1 (203) 256 1000  
Mobile: +1(281) 908 4992

#### Pacific (USA and Canada)

Vancouver, Canada  
Office: +1 (778) 285 0053  
Mobile: +1 (778) 989 0153

#### Brazil

Sao Paulo, Brazil  
Office: +55 11 994680133  
Mobile: +55 11 40298333

#### Argentina

Buenos Aires, Argentina  
Office: +1 (203) 256 1000  
Mobile: +54 911 3516 1710

**Rule 26 of the Federal Rules of Civil Procedure 26(a)(2)(B) Disclosures****LIST OF ALL OTHER CASES IN WHICH, DURING THE PREVIOUS 4 YEARS, THE WITNESS  
TESTIFIED AS AN EXPERT AT TRIAL OR BY DEPOSITION**

DATE	CASE	CLIENT	DESCRIPTION
02/14/2020	Indorama Ventures Oxides LLC v. M/V Natchez Express, U.S. Official No. 127460, her engines, apparel, furniture, equipment, appurtenances, tackle, etc., in rem et al	Phelps Dunbar LLP - New Orleans 365 Canal Street, Suite 2000 New Orleans, LA 70130-6534	Deposition testimony.

**THE WITNESS'S QUALIFICATIONS, INCLUDING A LIST OF ALL PUBLICATIONS AUTHORED IN THE PREVIOUS  
10 YEARS:**

See attached Resume.

**A STATEMENT OF THE COMPENSATION TO BE PAID FOR THE STUDY AND TESTIMONY IN THE CASE:**

I represent Independent Maritime Consulting LLC, who are charging fees for my time of \$275/hour for document review and report preparation and \$375/hour for live testimony.